

The Real ID Act: Fixing Identity Documents with Duct Tape

SERGE EGELMAN^{*} & LORRIE FAITH CRANOR

ABSTRACT

In recent years the role of the Department of Motor Vehicles has been transformed from issuing licenses to drive a motor vehicle to issuing government-endorsed photo identification. A driver's license is used not only by the state government, but also by the federal government for boarding airplanes and the issuance of passports. Passports are the de facto photo identification used by foreign governments in the course of international travel. Therefore, there are many security and privacy implications that stem from the issuance of not just the state driver's license but also the breeder documents (the identity documents that are used in creating new identity documents) which are used in the granting of the driver's license. Recently there have been new proposed regulations that aim to increase the security of both the passport and the driver's license. In this paper we discuss these proposed changes, the potential privacy and security problems, as well as policy conflicts between DMV regulations and applicable state and federal laws.

I. INTRODUCTION

Identification has become a part of daily life for many U.S. citizens. Since most Americans do not carry passports, the driver's license is the most often used form of government-issued identification. It is not just used as a license to drive, but as proof of identity, proof of name, and even proof of residency. Given the many uses for this document and the trust placed in it, it is no wonder that government officials are trying to decrease its susceptibility to fraud as well as make it more uniform across states.

As of 2001, the U.S. Bureau of Transportation Statistics reported a total of 191,275,719 individually licensed drivers in the United States;

^{*} This work was supported in part by the National Science Foundation under grant IGERT 9972762 in CASOS. Additional support was provided by the center for Computational Analysis of Social and Organizational Systems (CASOS), the Institute for Software Research International, and CyLab at Carnegie Mellon University. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the National Science Foundation or the U.S. government.

this corresponds to roughly 65% of the population.¹ Now that every state issues its license with a photograph, the driver's license is considered the de facto standard identification document within the United States. This can be seen through many common transactions: entering a bar or nightclub, withdrawing money from a bank, writing a check, and even boarding an airplane. According to the U.S. Transportation Security Administration (TSA), all individuals wishing to travel within the United States by airplane must present government-issued photo ID at the airport.² Since fewer than ten percent of U.S. citizens possess passports,³ it is clear that the driver's license is virtually required for air travel.

The Tenth Amendment to the U.S. Constitution requires that all rights and privileges that are not regulated in the Constitution be left up to the states. Since the privilege of driving does not explicitly have interstate commerce implications and because there are no constitutional guidelines, the licensing of drivers is left up to the states. In all states, there are specific requirements for obtaining a license, though they are largely similar for the purpose of comity. An individual who has never held a license before in any state is required to pass a written exam as well as a road test. All applicants are required to pass a vision test (with or without glasses) and show proof of identity. With the exception of Hawaii, all states require that applicants prove that they are a resident of the state to which they are applying.^{4,5}

¹ United States Bureau of Transportation Statistics, "Table 4-2: Licensed Drivers: 2001," http://www.bts.gov/publications/state_transportation_profiles/summary/html/table_04_02.html (accessed August 23, 2005).

² U.S. Transportation Security Administration, "Travelers and Consumers: Air Travel," http://www.tsa.gov/public/interapp/editorial/editorial_1254.xml (accessed August 23, 2005).

³ Franz Wisner, "World Traveler: Five business lessons from the center of the real world," *OC Metro*, http://www.ocmetro.com/archives/ocmetro_2002/metro062702/business062702.html (accessed August 23, 2005).

⁴ Hawaii Motor Vehicle Safety Office, "Highway Safety Section: Obtaining a License," 2004, <http://www.hawaii.gov/dot/highways/hwy-v/hidlrqmt.pdf> (hereinafter cited as *Hawaii Motor Vehicle Safety Office*).

⁵ 17 *Hawaii Revised Statutes* § 286-111 (2005), http://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0286/HRS_0286-0111.htm (accessed August 23, 2005) (hereinafter cited as *The Hawaii Revised Statutes*).

The abbreviation “DMV” stands for Department of Motor Vehicles, and is used loosely in this paper to denote the state entity that grants driver licenses. However, the organization of the DMV significantly varies from state to state. In most states the DMV is a division of the Department of Transportation. However, in many states it is part of either the Department of Public Safety or the Department of Revenue. Some states do not call it a DMV and some make it a division of a different department or bureau altogether. In every state, the basis for the DMV and its power must come about through legislative action. Every state has statutes outlining the function and powers of its DMV. In many cases, the DMV is given the power to set its own policies either through the regulatory process or by the discretion of the director. The director often determines what information needs to be collected from an applicant for a driver’s license, though in some cases this is specified by statute or regulation. Additionally, the director often decides how this information is kept and to whom it can be released. The system of checks and balances between the judicial, legislative, and executive branches keeps DMV legislation under strict scrutiny. However, DMV practices set by the director are often not held to this same scrutiny. We will show that many DMV policies conflict with state statutes and regulations, and also have varying privacy implications.

Under Article IV of the U.S. Constitution, “the citizens of each state shall be entitled to all privileges and immunities of citizens in the several states.”⁶ This means that if you get married in one state, your marriage must be recognized in other states. Additionally, one would assume that this means that identification cards and driver’s licenses issued by one state should be recognized as valid identification documents in every other state. This process has been extended and formalized by the creation of the American Association of Motor Vehicle Administrators (AAMVA), through which DMV officials from every state can meet in order to streamline interstate policies (though the organization itself has no official power to set policy).⁷ However, in the wake of September 11th, states are rushing to dramatically change their driver’s licensing requirements, and thus licensing policies differ drastically from state to state.^{8,9} This paper

⁶ U.S. CONST. art IV, § 2.

⁷ American Association of Motor Vehicle Administrators, “About AAMVA,” 2005, <http://www.aamva.org/about/>.

⁸ Jennifer Wipf and Peter Wipf, “Now DMV is Turning *Legal* Immigrants Away,” *About.com*, January 15, 2002, <http://www.immigration.about.com/library/weekly/aa011502a.htm>.

surveys all fifty states to draw similarities and differences among their DMV licensing policies and to determine their basis in law and effect on personal privacy.

In this paper we will examine the driver's licensing policies of all fifty states. This includes analyzing the contents of the driver's license, the legislative basis for granting the license, and the DMV policies that govern the process. We will show that while many states have largely similar requirements, some state DMVs have adopted policies that differ from the state laws and regulations. At the same time states have created many privacy and security problems. Finally, we will examine recent federal legislation that is aimed at reforming the licensing system. This legislation was passed in hopes of making the process more secure as well as uniform across all of the states. Unfortunately it does very little to address any of the security problems and rather creates many new privacy problems. We believe that the current administration's reliance on the Real ID Act to prevent identity document fraud is akin to its suggestion of using duct tape to stay safe during a biochemical or nuclear attack.

II. DMV POLICIES ON PERSONAL DATA

The state DMVs collect numerous types of personal data on their customers. The increase in data collection draws concerns about who has access to the information. Prior to ten years ago, it was common practice for roughly two-thirds of the state DMVs to offer this information to whomever asked for it. Some states charged a nominal fee while others made names, birth dates, addresses, phone numbers, license plate numbers, photographs, and Social Security Numbers available for free. Some states also pro-actively sold this information to private companies; New York made \$17M in one year by selling license information to marketing companies.^{10,11}

On July 18, 1989, Robert Bardo, an obsessed fan, shot actress Rebecca Schaeffer to death outside her apartment. He had found her

⁹ National Conference of State Legislatures, "State Driver's Licensing, State Identification Cards and Fraud," June 2002, <http://www.ncsl.org/programs/transportation/licensingfraud.htm> (accessed August 23, 2005).

¹⁰ Heather Hayes, "U.S. Supreme Court Takes up Driver's License Data Privacy," *CNN.com*, May 21, 1999, <http://www.cnn.com/TECH/computing/9905/21/license.priv.idg/>.

¹¹ Electronic Privacy Information Center, "The Drivers Privacy Protection Act (DPPA) and the Privacy of Your State Motor Vehicle Record," August 24, 2004, <http://www.epic.org/privacy/drivers/> (hereinafter cited as *DPPA 2004*).

address after paying a detective agency \$250. The agency simply went to the California Department of Motor Vehicles and bought all of Schaeffer's records, which were publicly available.¹² This abuse of publicly available information and other similar incidents were the motivations for Congress to pass the Driver's Privacy Protection Act (DPPA; 18 U.S.C. §2721) in 1994. The DPPA makes it illegal for state DMVs to release personal information without the requester providing a valid reason. Valid reasons include debt collection, insurance and safety purposes, product recalls, market research, and when the requester has permission from the data subject. It should also be noted that government agencies and licensed private investigators are exempt from the law.¹³ This means that had this law been around prior to 1989, Bardo would have still been able to obtain Rebecca Schaeffer's address because he used a licensed private investigator. Additionally, the DPPA is often not enforced and in some cases no burden of proof is required when a reason is given for requesting driver records. For instance, in 2002, Allstate employees were able to obtain records from the California DMV for personal use. At the time, they had told DMV officials that they were exempt from the DPPA because they fell under the "insurance and safety" category.¹⁴

III. DRIVER LICENSING PRACTICES OF THE 50 STATES

For this study, data was aggregated from the fifty states on what information is required by the DMV in order to grant a driver's license. We took information solely from official web pages. Thus it is possible that what is presented on the web page is different from what the DMV asks for in person. Additionally, we also consulted state statutes to determine the legal basis for the DMV policies. All laws examined were current through 2003, as the 2004 legislative session had not yet finished as of the original data gathering. Table 2 contains a summary of this data.

¹² Katherine Ramsland, "It Takes A Star," Court TV's Crime Library, 2004, http://www.crimelibrary.com/criminal_mind/psychology/stalkers/1.html.

¹³ *DPPA 2004*, 10.

¹⁴ Deborah Lohse, "Illegal Snooping Costs Allstate Access to Online DMV Records," *Mercury News*, January 16, 2003, <http://www.siliconvalley.com/mld/siliconvalley/4965810.htm> (accessed January 2004; article now removed).

The table displays data on eight different metrics used for this study. Almost every state classifies identification documents as being either primary or secondary. Primary identification consists of a birth certificate or passport in every state, but beyond that the requirements are very nuanced, as will be discussed later. Secondary identification usually consists of government issued documentation that is not normally used for identification purposes: marriage certificates, social security cards, INS documents, and even school records. In the key for the table, a "P" preceded by a number indicates a quantity of primary identification documents, and an "S" preceded by a number indicates a quantity of secondary identification documents. In some cases, multiple secondary documents can be substituted for a primary document; this is denoted by a "/" separating two different requirements. In all cases, if information about requirements could not be located, "N/A" is displayed in the table.

The first metric displayed in the table is the legal requirements for obtaining a driver's license. This amounts to whether a state statute outlines what identification is required, and if so, what that information is. The aforementioned syntax is used in most cases. In some cases though, the law delegates authority to the director of the DMV. In the table, "DD" indicates that the law allows the director to determine all identification requirements. In a few select cases, the law stipulates that the applicant need only sign a sworn affidavit that the information he has provided is correct. An "A" indicates these cases.

The next two columns in the table indicate what the DMV policy is in regard to identification. This information was taken from either the official DMV web site, or from DMV regulations. Column two outlines the requirements for an individual who has never held a driver's license, and the third column outlines the requirements for a new resident to the state who wishes to transfer an out-of-state license. In many cases these requirements are the same, with any discrepancies usually based on whether the previous driver's license is accepted by the DMV as valid identification. The fourth column indicates this. This field shows whether the previous license is accepted, and if it is, whether it counts as a primary or secondary form of identification. The fifth column indicates whether a state requires an individual to present "proof of Social Security Number" at the time of licensing. This amounts to either the original Social Security card or an official letter from the Social Security Administration. The sixth column indicates whether a state requires applicants to be fingerprinted. The last two columns show whether a signature appears on the license and whether the license is electronically readable. This last column also

shows what format is used for making it electronically readable (either a barcode, magnetic strip, or both).

Table 1: Key for Driver Licensing Practices of the 50 States Table

Abbreviation	Description
A	Sworn Affidavit
DD	DMV Discretion
N/A	Not Applicable / No Information Found
O	Other
P	Primary Identification
S	Secondary Identification
BC	Bar Code
MS	Magnetic Stripe

Table 2: Driver Licensing Practices of the 50 States

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
AL ^{15,16}	DD	1P 1S ¹⁷	1P 1S	S	Yes	No	Yes	BC MS

¹⁵ Alabama Department of Public Safety, "Applying for an Alabama Driver License or Non-Driver Identification Card," 2004, <http://www.dps.state.al.us/public/driverlicense/pdf/ApplyingDL.pdf>.

¹⁶ *Code of Alabama* § 32-6-4 (2001), <http://alisd.b.legislature.state.al.us/acas/ACASLogin.asp> (accessed August 23, 2005).

¹⁷ Two secondary forms of identification if photograph is not present.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
AK ^{18,19}	DD	1P 1S ²⁰	1P 1S	S	No	No	Yes	BC
AZ ^{21,22}	DD	1P 1S ¹⁷	1P 1S	P / S ²³	No	No	Yes	BC MS
AR ^{24,25}	DD	1P 1S ¹⁷	1P	P	No	No	Yes	BC MS

¹⁸ Alaska Division of Motor Vehicles, "Drivers License, Permit and State ID Information," 2004, <http://www.state.ak.us/local/akpages/ADMIN/dmv/akol/index.htm>.

¹⁹ *Alaska Statutes* § 28.15.061 (2004), <http://www.legis.state.ak.us/cgi-bin/folioisa.dll/stattx04/query=?/doc/%7Bt12171%7D?>.

²⁰ One document must show date of birth.

²¹ Arizona Department of Transportation, "Driver License: Frequently Asked Questions," 2004, <http://www.dot.state.az.us/mvd/faqs/scripts/faqs.asp?section=d1> (accessed August 23, 2005).

²² *Arizona Revised Statutes* § 28-3158 (2004), <http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/28/03158.htm&Title=28&DocType=ARS> (accessed August 23, 2005).

²³ Only license from a select list of states qualify as primary identification.

²⁴ Office of Driver Services, "Driver License Overview," Arkansas Department of Finance and Administration, http://www.arkansas.gov/dfa/driver_services/ds_license.html.

²⁵ *Arkansas State Code* tit. 27 (2004), <http://170.94.58.9/NXT/gateway.dll?f=templates&fn=default.htm&vid=blr.code>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
CA ^{26,27}	DD	1P	1P	P	No	Yes	Yes	BC MS
CO ^{28,29}	DD	2P	2P	P	No	Yes	Yes	BC MS
CT ^{30,31}	DD	1P 1S	1P 1S	S	No	No	Yes	BC

²⁶ California Department of Motor Vehicles, "Driver License and Identification (ID) Card Information," 2004, http://www.dmv.ca.gov/dl/dl_info.htm.

²⁷ *California Vehicle Code* § 12800-12819 (2004), <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=veh&group=12001-13000&file=12800-12819>.

²⁸ Colorado Division of Motor Vehicles, "Colorado Driver Licenses: Answers to Frequently Asked Questions," State of Colorado Department of Revenue, 2004, http://www.revenue.state.co.us/mv_dir/wrap.asp?incl=faqdrli.

²⁹ *Colorado Revised Statutes* § 42-2-107 (2004), <http://198.187.128.12/colorado/lpext.dll/Infobase4/6208f/62277/62279/622d4/62372?f=hitlist&q=42-2-107&x=Advanced&opt=&skc=8000000300062373&c=curr&gh=1&2.0#LPHit1>.

³⁰ Connecticut Department of Motor Vehicles, "Acceptable Forms of Identification," 2003, <http://www.ct.gov/dmv/cwp/view.asp?a=805&q=244772>.

³¹ 14 *General Statutes of Connecticut* § 246-14-36 (2004), <http://search.cga.state.ct.us/dlpubs/pub/htm/CHAP246.HTM#Sec14-36.htm>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
DE ^{32,33}	DD ³⁴	1P 1S	1P 1S	P	No	No	Yes	BC
FL ^{35,36}	DD	1P 1S	1P 1S	P / S ²³	No	Yes	Yes	BC MS
GA ^{37,38}	DD	1P	1P 1S	S	No	Yes	Yes	BC
HI ^{39,40}	DD	1P ⁴¹	1P	P	No	Yes	Yes	BC

³² Delaware Division of Motor Vehicles, "Driver Services," 2004, http://www.dmv.de.gov/services/driver_services/drivers_license/dr_lic_gen_req.shtml.

³³ 21 *Delaware Code* chap. 27 (2004), <http://www.delcode.state.de.us/title21/c027/index.htm> (accessed August 23, 2005).

³⁴ Birth certificate or "other evidence satisfactory to the Division."

³⁵ Florida Department of Highway Safety and Motor Vehicles, "Obtaining Your Florida Driver License or Identification Card," 2004, <http://www.hsmv.state.fl.us/ddl/faqkeys.html>.

³⁶ 23 *Florida Statutes* § 322.08 (2004), http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch0322/SEC08.HTM&Title=>3E2003>3ECh0322>3ESection%2008#0322.08.

³⁷ Georgia Department of Driver Services, "Identification Requirements," 2005, <http://www.dds.ga.gov/drivers/DLdata.aspx?con=1741541737&ty=dl>.

³⁸ *Georgia Code* § 40-5-25 (2004), http://www.legis.state.ga.us/cgi-bin/gl_codes_detail.pl?code=40-5-25.

³⁹ *Hawaii Motor Vehicle Safety Office*, 4.

⁴⁰ *The Hawaii Revised Statutes*, 5.

⁴¹ Proof of age and identity. Proof of residency is not required.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
ID ^{42,43}	DD	1P 1S	1P 1S	P	No	No	Yes	BC
IL ^{44,45}	DD	1P	1P	P	Yes	No	Yes	BC
IN ^{46,47}	A	1P 1S	1P 1S	S	Yes	No	Yes	BC
IA ^{48,49}	DD	1P 1S	1P 1S	P	No	No	Yes	BC MS

⁴² Idaho Division of Motor Vehicles, "Idaho Driver's Licenses and Identification Cards: Fact Sheet," 2004, http://itd.idaho.gov/dmv/DriverServices/driver_license_facts.htm.

⁴³ *Idaho Statutes* § 49-3-306 (2004), <http://www3.state.id.us/cgi-bin/newidst?scid=490030006.K>.

⁴⁴ Cyber Drive Illinois, "Rules of the Road," 2004, http://www.sos.state.il.us/publications/rr/rr_chap01.html.

⁴⁵ 625 *Illinois Compiled Statutes* § 5-6 (2004), <http://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=062500050HCh%2E+6&ActID=1815&ChapAct=625%26nbsp%3BILCS%26nbsp%3B5%2F&ChapterID=49&ChapterName=VEHICLES&SectionID=28511&SeqStart=72290&SeqEnd=92890&ActName=Illinois+Vehicle+Code%2E>.

⁴⁶ Indiana Bureau of Motor Vehicles, "Driver License: Identification Requirements," 2004, <http://www.in.gov/bmv/driverlicense/idreq.html> (accessed August 24, 2005).

⁴⁷ *Indiana Code* § 9-24-3 (1991), <http://www.in.gov/legislative/ic/code/title9/ar24/ch3.html> (accessed August 24, 2005).

⁴⁸ Iowa Department of Transportation. "Proof of Identity for an Iowa Driver's License or ID," 2004, <http://www.dot.state.ia.us/mvd/ods/identity.htm>.

⁴⁹ 7 *Iowa Code* § 321.182 (2004), <http://www.legis.state.ia.us/IACODE/2003SUPPLEMENT/321/182.html>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
KS ^{50,51}	DD	1P 1S	1P 1S	P	No	No	Yes	BC MS
KY ^{52,53}	DD	1P ⁵⁴	1P ⁵⁴	No	Yes	No	Yes	BC
LA ^{55,56}	DD	2P / 1P 1S	1P 1S	S	Yes	No	Yes	MS
ME ^{57,58}	DD	O ⁵⁹	1P	P	No	No	Yes	BC

⁵⁰ Kansas Department of Revenue, "Driver's License Information Proof of Identity," 2004, <http://www.ksrevenue.org/dmvproof.htm>.

⁵¹ *Kansas Statutes* § 8-240 (2003), <http://www.kslegislature.org/cgi-bin/statutes/index.cgi>.

⁵² Kentucky Transportation Cabinet, Division of Driver Licensing, "Obtaining a Kentucky Driver License/ID Card and General Information," 2004, <http://transportation.ky.gov/drlic/general.htm>.

⁵³ 16 *Kentucky Revised Statutes* § 186.412 (2004), <http://www.lrc.state.ky.us/KRS/186-00/412.PDF>.

⁵⁴ Birth certificates are the only accepted primary identification.

⁵⁵ Louisiana Office of Motor Vehicles, "Drivers License & Identification Card Information," Louisiana Department of Public Safety, 2005, <http://www.dps.state.la.us/omv/license.html>.

⁵⁶ 32 *Louisiana Revised Statutes* § 403 (2004), <http://www.legis.state.la.us/lss/lss.asp?doc=88374>.

⁵⁷ Maine Bureau of Motor Vehicles, "Obtaining a Driver's License," Department of the Secretary of State, 2004, <http://www.state.me.us/sos/bmv/licenses/getlicense.html>.

⁵⁸ *Maine Revised Statutes*, tit. 29-A, chap. 11, § 1301 (1993), <http://janus.state.me.us/legis/statutes/29-A/title29-Asec1301.html>.

⁵⁹ Any official document sufficiently proving age.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
MD ^{60,61}	DD	2P / 1P 2S	2P / 1P 2S	P	No	No	Yes	BC MS
MA ^{62,63}	DD	2P 2S	2P 2S	P	Yes	No	Yes	BC
MI ^{64,65}	DD	1P 2S	1P 2S	P	No	No	Yes	BC MS
MN ^{66, 67}	DD	1P 1S	1P 1S	S	N/A	No	Yes	BC MS

⁶⁰ Maryland Motor Vehicle Administration, "Sources of Proof," 2004, <http://www.marylandmva.com/DriverServ/Apply/proof.htm>.

⁶¹ *Maryland Statutes* § 16-106 (2004), http://mlis.state.md.us/cgi-win/web_statutes.exe.

⁶² Massachusetts Registry of Motor Vehicles, "Identification Requirements and Acceptable Documents," 2004, <http://www.mass.gov/rmv/license/3id.htm>.

⁶³ 14 *General Laws of Massachusetts* § 90-8 (2004), <http://www.mass.gov/legis/laws/mgl/90-8.htm>.

⁶⁴ Michigan Department of State, "Driver License & State ID," 2004, http://www.michigan.gov/sos/0,1607,7-127-1627_8669-,00.html.

⁶⁵ *Michigan Vehicle Code* § 257.307 (2004), <http://www.legislature.mi.gov/mileg.asp?page=getObject&objName=mcl-257-307>.

⁶⁶ Minnesota Department of Public Safety, Driver and Vehicle Services, "Identification and Residency Requirements," 2004, <http://www.dps.state.mn.us/dvs/ID%20Requirments/IDframeset.htm>.

⁶⁷ *Minnesota Statutes* § 171.06 (2004), <http://www.revisor.leg.state.mn.us/stats/171/06.html>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
MS ^{68,69}	N/A	1P ⁵⁴	1P	P	Yes	No	Yes	MS
MO ^{70,71}	A	2P 1S	2P 1S	No	Yes	No	Yes	BC
MT ^{72,73}	A	1P 1S	1P 1S	P	N/A	No	Yes	BC
NE ^{74,75}	DD ⁷⁶	1P	1P	P	Yes	No	Yes	BC

⁶⁸ Mississippi Highway Patrol Driver Services, "Regular Class R Driver License," Mississippi Department of Public Safety, 2004, <http://www.dps.state.ms.us/dps/dps.nsf/divpages/hp2ds-info-classR?OpenDocument>.

⁶⁹ *Mississippi Code* § 63-1-19 (2004), <http://198.187.128.12/mississippi/lpext.dll?f=templates&fn=fs-main.htm&2.0>.

⁷⁰ Missouri Department of Revenue, "Driver Licensing Checklist," 2004, <http://www.dor.mo.gov/mvdl/drivers/checklist.htm>.

⁷¹ 19 *Missouri Revised Statutes* § 302.171 (2004), <http://www.moga.state.mo.us/statutes/c300-399/3020000171.htm>.

⁷² Montana Department of Justice, "Driver Licensing," 2004, <http://www.doj.state.mt.us/driving/driverlicensing.asp>.

⁷³ *Montana Code Annotated* § 61-5-107 (2005), <http://data.opi.state.mt.us/bills/mca/61/5/61-5-107.htm>.

⁷⁴ Nebraska Department of Motor Vehicles, "Identification Requirements," 2004, <http://www.dmv.state.ne.us/examining/idlist.html>.

⁷⁵ *Nebraska Statutes* § 60-484 (2004), <http://statutes.unicam.state.ne.us/Corpus/statutes/chap60/R6004084.html>.

⁷⁶ Law stipulates standard primary identification documents or anything else that the director approves.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
NV ^{77,78}	P	1P	1P	No	Yes	No	Yes	BC
NH ^{79,80}	DD	2P 1S ⁸¹	2P 1S ⁸¹	No	No	No	Yes	BC MS
NJ ^{82,83}	DD	PS	PS	PS	Yes	No	Yes	BC
NM ^{84,85}	N/A	1P	1P	P	Yes	No	Yes	MS

⁷⁷ Nevada Department of Motor Vehicles, "Nevada Driver Licensing," 2004, <http://www.dmvnv.com/nvdl.htm>.

⁷⁸ 43 *Nevada Revised Statutes* § 483.290 (2004), <http://leg.state.nv.us/NRS/NRS-483.html>.

⁷⁹ New Hampshire Department of Safety, "Bureau of Driver Licensing Frequently Asked Questions," 2004, <http://nh.gov/safety/dmv/driverlic/faq.html>.

⁸⁰ 21 *New Hampshire Statutes* § 263:5 (1982), <http://www.gencourt.state.nh.us/ras/html/XXI/263/263-5.htm>.

⁸¹ Birth certificate must be provided along with one other primary identification and another proof of residency.

⁸² New Jersey Motor Vehicle Commission, "Licenses," 2004, http://www.nj.gov/mvc/cit_licenses/d_licenses.html.

⁸³ *New Jersey Permanent Statutes* § 39:3-10 (2004), http://lis.njleg.state.nj.us/cgi-bin/om_isapi.dll?clientID=127459717&Depth=4&TD=WRAP&advquery=%22licensing%20of%20drivers%3b%20classifications%22&headingswithhits=on&infobase=statutes.nfo&rank=&record={DA5A}&softpage=DOC_Frame_Pg42&wordsaroundhits=2&x=0&y=0&zz=.

⁸⁴ New Mexico Motor Vehicle Division, "Driver License Manual," 2004, <http://www.state.nm.us/tax/pubs/dlm/dlm.htm>.

⁸⁵ *New Mexico Statutes* § 66-5-9 (2004), http://www.conwaygreene.com/nmsu/lpext.dll/Infobase4/992/1c2ca/1c8f5/1c8f8/1c952?f=templates&fn=document-frame.htm&2.0#JD_66-5-9JD_66-5-9.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
NY ^{86,87}	DD	PS	PS	PS	No	No	Yes	BC
NC ^{88,89}	DD ⁹⁰	2P 1S	1P	P	N/A	No	Yes	BC
ND ^{91,92}	DD	1P	1P	No	No	No	Yes	BC
OH ^{93,94}	N/A	1P 1S	1P 1S	P	Yes	No	Yes	BC MS

⁸⁶ New York State Department of Motor Vehicles, "General Information About Driver Licenses," 2004, <http://www.nydmv.state.ny.us/license.htm>.

⁸⁷ *New York Vehicle & Traffic Code* § 502 (2004), [http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$VAT502\\$\\$@TXVAT0502+&LIST=LAW+&BROWSER=28865828+&TOKEN=53980568+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$VAT502$$@TXVAT0502+&LIST=LAW+&BROWSER=28865828+&TOKEN=53980568+&TARGET=VIEW).

⁸⁸ North Carolina Division of Motor Vehicles, "Applying for a Driver's License or Learner's Permits?," 2004, http://www.ncdot.org/dmv/driver_services/drivingpublic/applying.html.

⁸⁹ *North Carolina General Statutes* § 20-7 (2004), http://www.ncleg.net/EnactedLegislation/Statutes/HTML/BySection/Chapter_20/GS_20-7.html.

⁹⁰ Statute calls for any two forms of identification approved by the director.

⁹¹ North Dakota Department of Transportation, "Drivers License and Traffic Safety," 2004, <http://www.state.nd.us/dot/dlinfo.html>.

⁹² *North Dakota Century Code* § 39-06 (2004), <http://www.state.nd.us/lr/cencode/t39c06.pdf>.

⁹³ Ohio Bureau of Motor Vehicles, "Acceptable Identification Documents," 2004, http://www.bmv.ohio.gov/aid_2.html.

⁹⁴ 45 *Ohio Revised Code* § 4507.06 (2004), <http://onlinedocs.andersonpublishing.com/oh/lpExt.dll/PORC/1f5c8/1fc66/1fc9c?>

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
OK ^{95,96}	DD ⁹⁷	1P 1S	1P 1S	P	N/A	No	Yes	BC
OR ^{98,99}	DD	2P / 1P 2S	2P / 1P 2S	P	No	No	Yes	BC
PA ^{100,101}	1P	1P ¹⁰²	1P ¹⁰²	No	Yes	No	Yes	BC MS

⁹⁵ Oklahoma Department of Public Safety, "Drivers License FAQ," 2004, <http://www.dps.state.ok.us/dls/dlfaq.htm>.

⁹⁶ 47 *Oklahoma Statutes* § 6-1-6(A) (2004), <http://www.lsb.state.ok.us/OKStatutes/CompleteTitles/os47.rtf>.

⁹⁷ Law requires one primary and one secondary identification document; DMV is left to determine what counts as primary and secondary identification.

⁹⁸ Oregon Department of Motor Vehicles, "Proofs of Age, Identity and Address," 2004, <http://www.oregon.gov/ODOT/DMV/driverid/idproof.shtml>.

⁹⁹ 59 *Oregon Revised Statutes* § 807.400 (2004), <http://www.leg.state.or.us/ors/807.html>.

¹⁰⁰ Pennsylvania Driver & Vehicle Services, "Documentation Needed for Proof of Identity and Residency," 2004, http://www.dmv.state.pa.us/licensing_master/identity.shtml (hereinafter cited as *Pennsylvania Driver & Vehicle Services*).

¹⁰¹ 67 *Pennsylvania Code* § 73.3 (2004), <http://www.pacode.com/secure/data/067/chapter73/s73.3.html> (hereinafter cited as *Pennsylvania Code*).

¹⁰² DMV policy does not recognize an out-of-state license as valid primary identification, while the state regulation does.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
RI ^{103,104}	DD	1P	1P	P	Yes	No	Yes	BC
SC ^{105,106}	O ¹⁰⁷	1P	1P	No	Yes	No	Yes	BC MS
SD ^{108,109}	DD ¹¹⁰	1P 1S ¹¹¹	1P 1S ¹¹¹	S	No	No	Yes	BC

¹⁰³ State of Rhode Island Division of Motor Vehicles, "Licenses & IDs," 2004, <http://www.dmv.ri.gov/licenses/>.

¹⁰⁴ *State of Rhode Island General Laws* § 31-10-12 (2004), <http://www.rilin.state.ri.us/Statutes/TITLE31/31-10/31-10-12.HTM>.

¹⁰⁵ South Carolina Department of Motor Vehicles Online, "Accepted Forms of Identification," 2004, <http://www.scdmvonline.com/DLidentity.aspx>.

¹⁰⁶ *South Carolina Code of Laws* § 56-1-90 (2004), <http://www.scstatehouse.net/code/t56c001.htm>.

¹⁰⁷ Law stipulates proof of name and proof of date and place of birth.

¹⁰⁸ South Dakota Department of Public Safety, "South Dakota Driver Licensing Program," 2004, http://www.state.sd.us/dps/dl/sdinfo/sdl_main.asp.

¹⁰⁹ *South Dakota Statutes* § 32-12-3.1 (2003), <http://legis.state.sd.us/statutes/index.aspx?FuseAction=DisplayStatute&Type=Statute&Statute=32-12-3.1>.

¹¹⁰ Birth certificate, passport or any other reasonable document.

¹¹¹ Birth certificate and one additional secondary document.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
TN ^{112,113}	DD	1P 1S	1P 1S	P	N/A	No	Yes	BC
TX ^{114,115}	DD	1P / 2S	1P / 2S	S	Yes	Yes	Yes	BC MS
UT ^{116,117}	DD	1P ⁵⁴	1P ⁵⁴	P	Yes	No	Yes	BC
VT ^{118,119}	DD	1P 1S	1P 1S	P	N/A	No	Yes	BC MS

¹¹² Tennessee Department of Safety, "Do You Have the Right Documents," 2004, <http://www.tennessee.gov/safety/requireddocsign.pdf>.

¹¹³ *Tennessee Code* § 55-50-321 (2004), <http://198.187.128.12/tennessee/lpext.dll/Infobase/2e6e1/303d2/304af/30522?fn=document-frame.htm&f=templates>.

¹¹⁴ Texas Department of Public Safety, "Driver License and ID General Information," 2004, http://www.txdps.state.tx.us/administration/driver_licensing_control/dlgeneralinformation.htm.

¹¹⁵ 7 *Texas Statutes* § 521.142 (2004), <http://www.capitol.state.tx.us/statutes/docs/TN/content/htm/tn.007.00.000521.00.htm#521.142.00>.

¹¹⁶ Utah Department of Public Safety, "Driver License Division Frequently Asked Questions," 2004, <http://driverlicense.utah.gov/faqs.html>.

¹¹⁷ *Utah Code* § 53-3-205 (2004), http://www.le.state.ut.us/code/TITLE53/htm/53_03014.htm.

¹¹⁸ Vermont Department of Motor Vehicles, "Proof of Identity Required," 2004, <http://www.dmv.state.vt.us/LICENSES/PROOFOFIDREQUIRED.htm>.

¹¹⁹ 23 *Vermont Statutes* § 631 (2004), <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=23&Chapter=009&Section=00631>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
VA ^{120,121}	DD	1P 1S	1P 1S	P	Yes	No	Yes	BC
WA ^{122,123}	1P ¹²⁴	1P / 2S	1P / 2S	No ¹²⁵	No	No	Yes	BC
WV ^{126,127}	1P ⁵⁴	1P	1P	N/A	Yes	Yes	Yes	BC

¹²⁰ Virginia Department of Motor Vehicles, "Acceptable Documents for Obtaining a Driver's License of Photo Identification Card," 2005, <http://www.dmv.state.va.us/webdoc/pdf/dmv141.pdf>.

¹²¹ *Code of Virginia* § 46.2-323 (2003), <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+46.2-323>.

¹²² Washington Department of Licensing, "Identification Requirements," 2005, <http://www.dol.wa.gov/ds/id.htm>.

¹²³ *Revised Code of Washington* § 46.20.035 (2004), <http://www.leg.wa.gov/RCW/index.cfm?section=46.20.035&fuseaction=section>.

¹²⁴ Any U.S. state or federal government issued photo-identification that also contains a signature.

¹²⁵ State law says previous license counts as sufficient identification but DMV policy says it does not.

¹²⁶ West Virginia Division of Motor Vehicles, "Driver's License Information," 2004, http://www.wvdot.com/6_motorists/dmv/6gl1_licenseinfo.htm.

¹²⁷ *West Virginia Code* § 17B-2-7 (2004), <http://www.legis.state.wv.us/WVCODE/17B/WVC%2017%20B-%20%202%20%20-%20%20%20207%20%20.htm#HD0>.

State	Legal Requirements	DMV Requirements for New License	DMV Requirements for Transfer License	Previous License Accepted?	Social Security Card Required?	Fingerprints Collected?	Signature on License?	Electronically Readable?
WI ^{128,129}	DD	1P 1S ⁵⁴	1P 1S ⁵⁴	S	No	No	Yes	BC
WY ^{130,131}	1P ¹³²	1P	2P ¹³³	O ¹³⁴	Yes	No	Yes	BC

IV. ANALYSIS

At first glance, our data shows that to get a driver's license in every state, all that one needs is a birth certificate or some other document that was acquired with a birth certificate. This is a gaping security hole in the identification process as it is trivially easy to obtain a birth certificate. Specifically, in eighteen of the states, simply passing the exams and providing one form of primary identification is

¹²⁸ Wisconsin Department of Transportation, "Drivers License Documentation," 2005, <http://www.dot.wisconsin.gov/drivers/drivers/apply/doc/index.htm>.

¹²⁹ *Wisconsin Statutes* § 343.14 (2004), http://folio.legis.state.wi.us/cgi-bin/om_isapi.dll?clientID=38973695&infobase=stats.nfo&jl=343.14&jump=343.14&softpage=Browse_Frame_Pg.

¹³⁰ Wyoming Department of Transportation, "Acceptable Identification," 2005, <http://dot.state.wy.us/Default.jsp?sCode=drvid>.

¹³¹ *Wyoming Statutes* § 31-7-111 (2004), <http://legisweb.state.wy.us/statutes/titles/title31/chapter07.htm>.

¹³² A birth certificate is required for first time applicants while a previous license is required for everyone else.

¹³³ Birth certificate plus previous license.

¹³⁴ A new license only needs a birth certificate whereas a transfer requires both a birth certificate and the previous license.

sufficient to obtain a driver's license. Twenty-one other states require one primary and one secondary form of identification. In all but seven states, a birth certificate plus secondary identification can be used to identify one's self when applying for an initial driver's license. This is a major security flaw as a birth certificate does not contain a photograph and can be obtained by anyone over the Internet. For instance, the VitalChek service allows anyone to obtain a birth certificate from 39[†] states without showing any identification. All that is required is knowledge of the name on the birth certificate, the names of the mother and father, and the location and date of birth. Of the other 11 states, most require a facsimile of a driver's license as proof of identity in order to obtain a birth certificate by mail. Many of the states will also require a signature upon delivery of the birth certificate (obviously they cannot compare it to any signature on the birth certificate).¹³⁵ Thus, it is trivial to obtain a valid driver's license in many states under someone else's name solely because of the trust that is incorrectly placed in birth certificates. This same trust is placed in the issuance of passports in the United States. To obtain a passport for the first time, all that is needed is a birth certificate and government-issued photo ID (such as a driver's license).¹³⁶ Thus, as with the driver's license, the root document in obtaining a passport is the birth certificate. These relationships can be seen in figure 1.

[†] Upon trying to order from their website, we were prompted to either fax a copy of a driver's license or passport, or order the birth certificate directly from the state.

¹³⁵ VitalChek Networks, Inc., "Order Your Official Certificate Now!," 2005, <http://www.vitalchek.com/>.

¹³⁶ U.S. Department of State, "How to Apply in Person for a U.S. Passport," 2004, http://travel.state.gov/passport/get_first_apply.html.

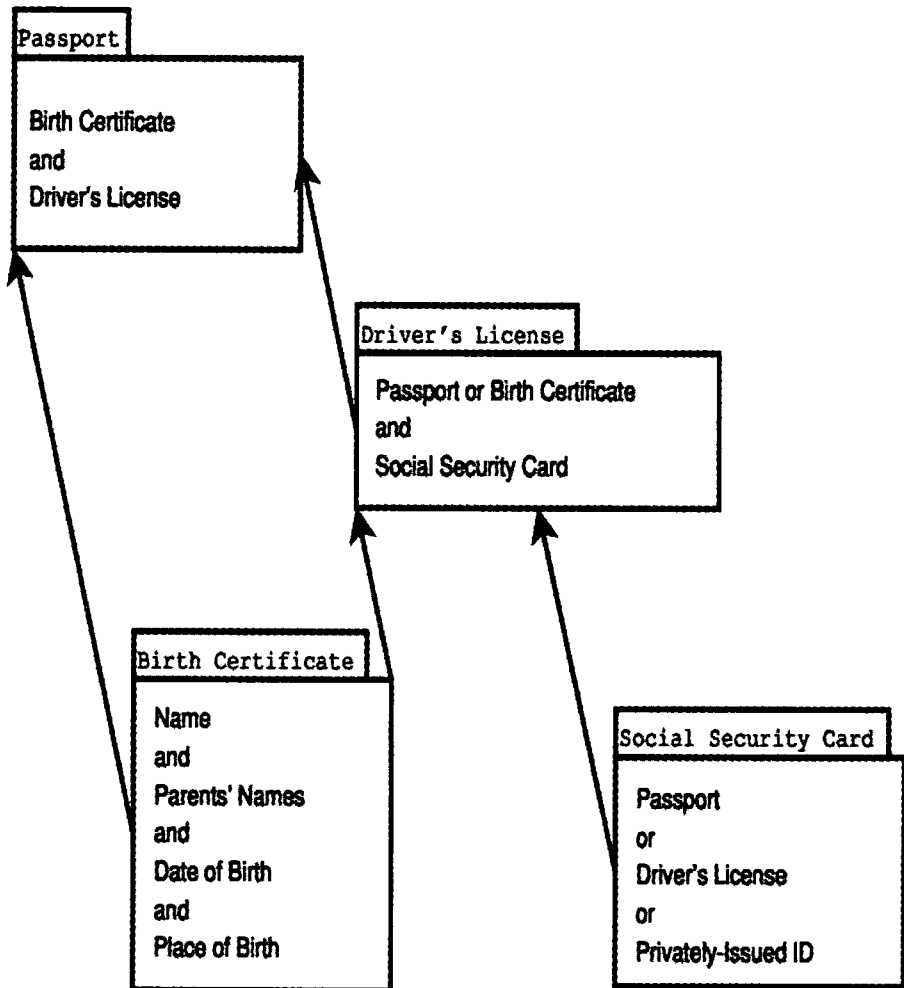


Figure 1: Identity Document Requirement Relationships

States making it easy to obtain a driver's license under false pretenses are not the only problem. Nine states have conflicts between their state laws and their DMV policies which make it harder for individuals to obtain a legitimate driver's license. Often this problem arises from having a lenient statute compounded with the DMV requiring more documentation than what is legally required. This specific case occurs in Pennsylvania. Section 73.3 of the Pennsylvania Code outlines a list of documents that are sufficient to prove one's identity when getting a PA license. The list that the DMV accepts is a

subset of this list; most notably, the DMV does not accept an out of state license, while the regulation specifically does.^{137,138}

Under the Department of Defense Appropriations Act of 1997, every state is required to collect Social Security Numbers during the driver licensing process. These numbers are collected in databases by the states and shared with the federal government. Under the law, every state is required to use a central system to verify every number with the Social Security Administration. From a telephone call with an AAMVA representative, it appears as though 44 states currently do this verification online, though under legislation to be discussed in the next section online verification will be required. This just means that the name, number, and birth date are both entered so that it can be determined whether the number is valid, and whether it was issued to the name and birth date listed on the license application.¹³⁹ However, as the table indicates, 21 states require the applicant to bring in physical proof of their Social Security Number. The card itself has no security features. Nor does the card say anything about the person presenting it; it contains a name and a number. While this makes it fairly trivial to forge a card, acquiring a legitimate one in another name is also trivial. The Social Security Administration requires identification to replace a lost card. Their mistake is that they do not restrict this to government-issued identification. They will happily accept an employee identification card or a student I.D. card.¹⁴⁰

One can clearly see that because of the identification dependencies and requirement relationships that surround most of the U.S. government-issued I.D., it is possible to obtain identification in someone else's name with just knowledge of that person and a forged privately-issued identification card. But, knowledge of the person might also be unnecessary; various online services allow a purchaser to enter a last name and receive a list of birth records, death records, Social Security numbers, property records, and even census data on all matches with similar last names.¹⁴¹ Thus, for \$100 and a last name, it

¹³⁷ *Pennsylvania Driver & Vehicle Services*, 100.

¹³⁸ *Pennsylvania Code*, 101.

¹³⁹ American Association of Motor Vehicle Administrators, "Social Security Number Verification Best Practices," 2003, <http://www.aamva.org/Documents/idsIDSecurityFrameworkAppendices106303.pdf>.

¹⁴⁰ U.S. Social Security Administration, "Your Social Security Number And Card," 2005, <http://www.ssa.gov/pubs/10002.html#proving>.

¹⁴¹ MyFamily.com Inc., Ancestry.com, 2005, <http://www.ancestry.com/>.

is possible to find all of the information necessary to obtain a birth certificate. Once this is accomplished, an individual can create a fictitious corporation which will grant an employee identification card in the name of the forged identity. This can be used to obtain an official Social Security card. With these two items, an individual can get a valid driver's license in another person's name in the majority of the states. With the driver's license and the birth certificate, a valid U.S. passport can be obtained.

V. FEDERAL LEGISLATION

In late 2004, Congress passed the Intelligence Reform Act (P.L. 108-458). In addition to reforming intelligence, it set new federal standards for identification documents. Among those specifically mentioned are driver's licenses. Since the federal government cannot force the states to abide by such standards, the law mandates that driver's licenses will not be accepted by federal agencies unless the states conform. This essentially means that older non-conforming licenses can still be used within states for the purpose of driving, but travel by airplane (or entrance to federal courts, travel by train, obtaining a passport, etc.) will not be allowed since the TSA (or any other federal entity) will not recognize such licenses as valid identification. Additionally, states are given another incentive to comply in the form of federal grants. In terms of what the law actually mandates, there are no specifics. Instead it stipulates that within nine months of its passing a committee is to adopt guidelines for the data that is to appear on the licenses. This includes name, photo, birth date, security features, a unique identification number, and a machine-readable technology. The committee is to consist of any interested parties, which includes both federal government agencies as well as privacy and civil liberties groups.

However, on January 26th of 2005, the Real I.D. Act (H.R. 418) was introduced in the House of Representatives. It was eventually amended to a "must-pass" defense spending bill, passing in the House and unanimously passing in the Senate with no debate. It was signed into law (as P.L. 109-13) on May 11th, causing the driver licensing provisions of the Intelligence Reform Act to be repealed. In addition to granting the Department of Homeland Security even more ambiguously far-reaching powers, the legislation also aims to standardize driver licensing across all of the states. The law sets specific minimum requirements for the content of a license: each license must contain a full name, date of birth, gender, a unique identification number, a photograph, signature, physical security

features (often a hologram), and a machine-readable technology (such as a bar code or magnetic stripe, though no specific technologies are mentioned in the law).¹⁴² While this looks substantially similar to the driver licensing provisions of the Intelligence Reform Act (which have been repealed under the Real ID Act), it differs on stating specifics. However, from our data, it appears that all fifty states have already implemented the guidelines for driver's license content. Every state requires that a reproduction of a signature appear on the front of the license, as well as that the license be machine-readable and contains a security feature. Some licenses contain a magnetic stripe, while others contain either a one-dimensional or a two-dimensional barcode.

Currently, forty states have implemented two-dimensional barcodes on licenses. This technology has been protected by a patent since 1993, which is assigned to Symbol Technologies.¹⁴³ However, since it is also an ISO standard now, the company is forced to license the technology free of charge. The adoption of this technology by state DMVs has allowed them to go from storing around 100 characters on a one-dimensional barcode or a magnetic stripe, to storing around 2,000 characters using a two-dimensional barcode. This allows them to store all of the information that appears on the face of a driver's license on the back in this machine-readable format. The AAMVA has been touting this new technology for detecting counterfeit licenses; both airport security personnel and bouncers can scan cards using handheld equipment to verify that the information that appears on the front is the same information that appears in the barcode.¹⁴⁴ However, what they fail to advertise is that since this is an open standard, instructions on how to both decode and encode these barcodes are publicly available. Indeed, searching online for counterfeit driver's licenses yields sites that advertise the inclusion of these new barcodes complete with authentic information. So in the end, licenses with this technology are no less susceptible to counterfeiting than their previous counterparts.

Another major difference between the Real ID Act and the licensing provisions of the Intelligence Reform Act is that the Real ID

¹⁴² *The REAL ID Act of 2005*, P.L. 109-13, Division B (hereinafter cited as *The Real ID Act*).

¹⁴³ Wang, Ynjiun P. 1993. System for encoding and decoding data in machine readable graphic form. U.S. Patent 5,243,655, filed Mar. 16, 1992, and issued Sept. 7, 1993, <http://www.freepatentsonline.com:9003/5243655.pdf>.

¹⁴⁴ American Association of Motor Vehicle Administrators (AAMVA), "Personal Identification – AAMVA International Specification – DL/ID Card Design," 2005, <http://www.aamva.org/documents/std2005dl-idcardspecv2final.pdf>.

Act aims to setup a national database. In addition to drivers in all fifty states having their information stored here, the database will also be shared with Canada and Mexico. Since all of the new licenses will have the same information on them, which is then stored in one national database, this basically creates a national ID card. In reality, the only difference between licenses will be the background picture. Creating a de facto national ID creates many new privacy implications yet does little to increase security. It is unclear what additional information will be stored in this database; the law mandates that all breeder documents be digitally stored for no less than ten years. While this helps to create a paper trail, it will also be a boon for identity theft.

Finally, the Real ID Act also sets up standards for the issuance of the license. In addition to requiring proof of a social security number (or lack thereof, e.g., a letter from the Social Security Administration saying that the applicant is ineligible) and proof of address, the act also requires "a photo identity document, except that a non-photo identity document is acceptable if it includes both the person's full legal name and date of birth." Thus, to prove identity, any document containing a full name and birth date will be accepted, regardless of who issued the document and whether it contains a photo or not. This provision was clearly put in place to allow birth certificates to be used, since the birth certificate is the most widely used breeder document. However, this is a major security flaw: there are no federal standards governing how states construct birth certificates, and thus each one may contain different information as well as different (or no) security features. But at the same time, the Real ID Act mandates that "the State shall verify, with the issuing agency, the issuance, validity, and completeness of each document required to be presented by the person."¹⁴⁵ There are essentially three types of verification:

1. Verifying that the document contains accurate information.
2. Verifying that the document is a certified original and not a forgery.
3. Verifying that the document describes the person who is presenting it.

This law only specifies the first type of verification. For instance, a DMV employee might call up the issuer of a birth certificate to confirm that the copy he is looking at has correct information printed on it (or, more accurately, information that matches the official

¹⁴⁵ *The REAL ID Act*, 142.

records). This only proves that such a person described by the document exists. This says nothing about whether this copy of the birth certificate is genuine, nor does it say whether the person applying for the license is really the person he claims to be. As mentioned earlier, obtaining a birth certificate is trivially easy; there can be no way of verifying that the person demanding the birth certificate is the same person whose name is featured on it since it does not contain any photographic information (even if it did, there would be no way of correlating the baby picture with the adult). At the same time, obtaining someone else's birth certificate is usually just a matter of knowing his name, birth date, and any other publicly available information that the locality might require. Indeed a recent report by the National Research Council found that "many of the foundational identification documents used to establish individual user identity are very poor from a security perspective, often as a result of having been generated by a diverse set of issuers that may lack an ongoing interest in ensuring the documents' validity and reliability. Birth certificates are especially poor as base identity documents, because they cannot be readily tied to an individual."¹⁴⁶ Thus, making the birth certificate the main identity document when issuing both drivers licenses and passports is a major security failure. This problem can only be addressed by the introduction of a strong biometric identifier on the birth certificate itself. This biometric must remain constant throughout the subject's lifetime. In short, a DNA fingerprint is the only identifier that could solve this problem.

Currently DNA tests take several hours to multiple days to complete and typically cost over a hundred dollars per test. This could mean that states could end up spending billions of dollars with little increase in document security; if the test takes multiple days, there is nothing to prevent one person from providing DNA and then having a different person show up to collect the completed document. These barriers would need to be addressed before widespread adoption could be considered. The creation of an identifier that is linked to DNA also creates problems of its own. If such a system were to be implemented today, it would only reasonably identify those who were born after the system's inception. Those who are already born would need to retroactively get identified before their DNA could go on record. There would need to be a very secure identification process in place before this could happen since if an individual fraudulently gets his DNA linked to the wrong identity, a very strong false sense of trust

¹⁴⁶ Stephen T. Kent and Lynette I. Millett, *Who Goes There? National Academy of Sciences*, 2003. <http://books.nap.edu/html/whogoes/>.

will be placed on this new identity indefinitely. Thus such a system can only reasonably be trusted for individuals born after its inception. But even in these cases the degree of linkage can never be perfect. This system would not be in place in every country, thus immigrants would have a better chance of assuming a false identity if they are not strongly linked with an identity document from birth. As of the 2000 U.S. Census, 11.1% of the population was born in a foreign country.¹⁴⁷ Additionally, not every child is born in a hospital where a DNA sample can be taken and certified immediately after birth. For instance, in 2002, 1% of all newborns in the U.S. were delivered outside of hospitals. While one percent is a small number, this corresponds to over 40,000 people that year alone.¹⁴⁸ Thus, if DNA fingerprints were to be placed on birth certificates or other identity documents, such a system would need at least twenty years to begin to function properly and would likely miss more than one tenth of the population.

The final problem with using DNA is that as our medical understanding increases, implications with regard to medical privacy also increase. The privacy concerns regarding sharing a large database containing DNA information are enormous. For instance, while the Privacy Act of 1974 (5 U.S.C. § 552) regulates access to personal medical records, there are exemptions for law enforcement. Imagine in ten years if we could determine someone's predisposition for becoming a sociopath based on DNA. Surely this database would undergo function creep to aid law enforcement in monitoring potential criminals. These concerns have played out in countless science fiction plots. For example, the movie "Gattaca" provides one view of DNA testing taken to an extreme. While such stories are fictitious, the issues they raise are worthy of consideration.

VI. PRIVACY CONCERNS

While it is clear that the Real ID Act at best does nothing to improve the security of identity documents and at worst makes such documents less secure, it also creates many new privacy concerns. Long-term theoretical privacy implications aside, there are many

¹⁴⁷ United States Census Bureau, "Nativity, Citizenship, Year of Entry, and Region of Birth: 2000," 2005, http://factfinder.census.gov/servlet/QTTable?_geo_id=01000US&-qr_name=DEC_2000_SF3_U_QTP14&-ds_name=DEC_2000_SF3_U.

¹⁴⁸ Centers for Disease Control, "National Vital Statistics Reports," December 17, 2003, http://www.cdc.gov/nchs/data/nvsr/nvsr52/nvsr52_10.pdf.

current privacy implications with regard to the Real ID Act. As discussed in Section 1, the driver's license is used for many non-governmental purposes. If this is to continue, non-government entities (private corporations) will require access to this database in order to verify licenses. This creates many problems, as it is difficult to ensure that these companies will use the information only for identity verification. There is also the question of how the government will be using the information and what additional information it will contain. For instance, if you swipe your ID to board a plane, will an entry be created in the database denoting your travel itinerary? Will private companies have access to additional information? Many point out that most European Union countries already have mandatory national identity cards, so this would be no different. However, there is a difference in that most EU countries have strong data privacy laws; government and corporations cannot share personal data without explicit consent. It should also be noted that these countries do not use linked databases to the extent that the U.S. does. Finally, the security of such a database must be called into question. While maintaining a database of this magnitude containing accurate information is a task unto itself, ensuring that it is secure against attackers will be another major problem. Such a database will need to be accessible to many different parties, yet at the same time it must be protected from insider attacks as well as viruses, worms, and outside human attackers.¹⁴⁹

Although not mandated by the Real ID Act, seven states currently collect fingerprints when issuing driver's licenses.¹⁵⁰ While the secondary uses of this data are largely unknown, California claims that the reason for acquiring fingerprints is to curb identity theft. Analyzing fingerprints at the time of license application can help guarantee that the applicant has only one license issued under one name. However, government collection of fingerprints is beginning to go well beyond the issuance of driver's licenses. There are claims that retaining fingerprints can help locate missing children. The National Child Identification Program is a joint venture between the FBI and

¹⁴⁹ Bruce Schneier, "A National ID Card Wouldn't Make Us Safer," *Minneapolis Star Tribune*, April 1, 2004, <http://www.schneier.com/essay-034.html>; American Civil Liberties Union, "5 Problems with National ID Cards," September 8, 2003, <http://www.aclu.org/Privacy/Privacy.cfm?ID=13501&c=39>; Adam Thierer, "National ID Cards: New Technologies, Same Bad Idea," CATO Institute, September 28, 2001, <http://www.cato.org/tech/tk/010928-tk.html>.

¹⁵⁰ Reed F. Morris, James B. Reed, and Melissa Savage, "State Driver's Licensing: Security Concerns," National Conference of State Legislatures, 2002, <http://www.ncsl.org/programs/press/2002/issues/driverslicense.htm>.

the American Football Coaches Association.¹⁵¹ The NCIP distributes fingerprinting kits at football games in hopes that parents will fingerprint their children and put the prints on file. These fingerprints are stored in the National Crime Information Center (NCIC),¹⁵² which is a database maintained by the FBI. This database is undergoing function creep – it was originally created to house information on criminal records. Ostensibly, it is in the federal government's interest to coordinate these programs with state DMVs so that soon every state will require fingerprinting of applicants. Creating a uniform framework for collecting this information from all of the states is only the first step.¹⁵³

Previously, most states required a warrant to gather fingerprints. If fingerprints were found at a crime scene and the authorities had a suspect in mind, a judge had to sign an order before the authorities could force the suspect to be fingerprinted (in an attempt to match the crime scene fingerprints).¹⁵⁴ The basis in law for this was that law enforcement officials could not touch an individual without a court order or consent as otherwise it could amount to assault or an unreasonable search. While it is possible for police to follow a suspect and wait for him to touch something, this practice usually only occurs when police have a particular suspect in mind. In fact, California made fingerprinting at the DMV optional from 1977 to 1982. However in 1982 fingerprinting became mandatory. Anecdotally, there are stories that applicants who declined to be fingerprinted were often subjected to having their fingerprints dusted from their application forms.¹⁵⁵ Whether or not these stories are true, the policy was not changed because DMV officials were violating the law but rather because the stories created a perceived image of dishonesty.

¹⁵¹ National Child Identification Program, "How Fingerprints can Help Find a Missing Child," 2004, <http://www.childidprogram.com/05fingerprint.html>.

¹⁵² Federation of American Scientists, "National Crime Information Center (NCIC)," 2003, <http://www.fas.org/irp/agency/doj/fbi/is/ncic.htm>.

¹⁵³ Electronic Privacy Information Center, "Your Papers, Please: From the State Drivers License to a National Identification System," February 2002, <http://www.epic.org/reports/yourpapersplease.pdf>.

¹⁵⁴ Ronald Bailey, "DNA Nation: It's a CSI world now," *reasononline*, November 22, 2004, <http://www.reason.com/links/links112204.shtml>.

¹⁵⁵ Declan McCullagh, "Which states currently fingerprint drivers (Georgia already does)," *Insecure.org*, November 20, 2002, <http://seclists.org/lists/politech/2002/Nov/0064.html>.

The Driver's Privacy Protection Act allows any DMV records to be accessible for law enforcement. Thus, states that require fingerprinting for driver's license applications no longer need to obtain warrants to gather fingerprints from the 65% percent of the adult population whose fingerprints are already in the DMV database. If the fingerprints cannot be found there, the authorities can now try searching NCIC, just in case the suspect was fingerprinted as a child (or if he was previously arrested). By allowing DMVs to retain fingerprints, law enforcement officials no longer need a particular suspect; any fingerprints found at a crime scene can be matched against the database as part of a fishing expedition to find a suspect. There is little difference between this practice and requiring DNA samples from all members of a particular demographic.¹⁵⁶

VII. RECOMMENDATIONS

The creation of a perfect identification system is a completely infeasible task. The resulting document would first need to be resistant to forgery. The best way of accomplishing this is through the use of cryptographic signatures. However, such signatures would need to be able to be readily verified by anyone examining the document. This would amount to every state opting in to a nationwide Public Key Infrastructure (PKI) so that verifiers can locate the digital key and determine whether or not it has been compromised.¹⁵⁷ The use of cryptography can also ensure that the document contains the same information that the issuing entity has on file, however it cannot guarantee that it describes the bearer. As mentioned earlier, this can only be accomplished by the use of a strong biometric that does not change over time, such as DNA. But mandatory DNA fingerprinting creates more problems than it solves. In short, to create a perfect identity document system, states would need a drastic increase in funding, and insight into properly setting up and maintaining a nationwide PKI and DNA database. Such a system would also put the U.S. at risk of turning into a police state.

Even if a perfect identity document system were in place, we would still be subjected to the same security problems. The current motivation for reforming the driver's license is to aid government in

¹⁵⁶ American Civil Liberties Union, "ACLU of Virginia Asks Charlottesville Police to Halt DNA Collection from African-American Males," April 12, 2004, <http://www.aclu.org/Privacy/Privacy.cfm?ID=15466&c=129>.

¹⁵⁷ Wikipedia, "Public Key Infrastructure," 2005, <http://en.wikipedia.org/wiki/PKI>.

identifying suspected terrorists. But in reality, if the government were to correctly know everyone's name when boarding a plane, it would still know almost nothing about an individual's intent. Of the nineteen September 11th hijackers, only two were on terrorist watchlists.¹⁵⁸ Identity information must be linked to detailed reputation information before an identity system can be useful for stopping terrorists or other criminals.

Because of the cost, privacy and security risks, and the futility of creating a new national identity system, it is our opinion that government resources can be better spent in other ways. First and foremost, border security needs to be increased in this country to keep foreign threats just that—foreign. This can be accomplished by improving intelligence-gathering techniques as well as coordinating sharing of intelligence between agencies and learning how to extract useful information out of the vast intelligence already collected. Sharing existing intelligence and records between law enforcement agencies will also address domestic threats. Finally, if enough funding remains to improve airport security, it should be spent on real security measures and not identification. Efforts should be focused on improving airport screening procedures and training new personnel. If airport screeners are able to determine that no one boarding a plane poses a danger to others, why does knowing the names of the passengers matter?

VIII. CONCLUSIONS

Roughly ten years ago, the process of obtaining a driver's license was relatively straightforward. If no prior license was held, the individual would show a birth certificate or passport, pass the applicable knowledge and vision tests, and be granted a license. If the individual was moving to a new state, all that was required in most states was a vision test and surrender of the previous driver's license. Only nineteen states still allow this practice, and soon none will allow it under the new federal legislation. With recent fears over terrorism and identity theft, states are trying to be pro-active about strengthening identification requirements.

Additional identification documents are now required in many states. In many cases these policies are set by the DMV and not by the state legislature, and thus often conflict with state laws. In other cases,

¹⁵⁸ National Commission on Terrorist Attacks Upon The United States, "The 9/11 Commission Report," August 21, 2004, http://www.9-11commission.gov/report/911Report_Exec.htm.

regulations created by the DMV are different from what the DMV does in practice. Requiring additional identification is not necessarily the solution to the problem especially when it is just as easy to fraudulently acquire identification documents.

Some of the pushes for increased security with regard to identification come from the federal government. We are moving towards a national identification card that is uniform across all the states, similar to identification cards in other countries. Congress and the Department of Homeland Security have stated that they will not explicitly mandate a national card. So instead the government is trying to do the next best thing— control how states issue driver's licenses so that these can be turned into a de facto national ID. Since 65% of the U.S. population has a driver's license, controlling this process will eliminate the need to reissue cards if we were to move towards a single federally-mandated card.

The new driver's license requirements have many implications for personal privacy. Fingerprinting is required in 14% of the states currently, but the Department of Justice is pushing to see all of the states implement it. Since obtaining fingerprints are normally covered under the Fourth Amendment, law enforcement usually needs a court order to require an individual to submit to fingerprinting. In any case, a suspect exists by the time law enforcement tries to match latent fingerprints. But if fingerprints are on file with the DMV and freely accessible to law enforcement, they can go on a fishing expedition, similar to compelling fingerprints from the entire population. Thus, one right to privacy will no longer exist; you will no longer have a say in how your personal information is stored, accessed, or shared.

While the Department of Justice is trying to take steps to make personal information readily accessible, some members of Congress seem to genuinely want to protect personal information. The Driver's Privacy Protection Act attempted to limit access to personal information to those who legitimately have a need for it. Unfortunately, the law has many loopholes and does little to protect what it was originally intended to protect. Since these problems stem from the DMV retaining the information in the first place, it would seem that there would only be one solution: require the DMV to only retain data that is absolutely necessary. The driver's license is no longer just a license to drive — it is both a state and national identification card. By allowing it to undergo function creep, privacy problems have abounded. This first happened when the driver's license turned into a license to purchase alcohol and will continue as it is further transformed into a more general-purpose license. Similarly, many of the government's attempts at strengthening these identification systems are coming under the guise of national security.

It is unclear if this is also a situation of function creep or of simple ignorance.

National security is about protecting the country from outsider attacks, yet efforts to regulate driver's licensing only impact those who are already within the country. Furthermore, since none of the efforts to increase the security of these documents address the security of the breeder documents, fraudulent identification documents will continue to be granted regardless of increased security measures. But at the same time, creating a new identity document that is strongly linked to an individual from birth will create new privacy and security problems of its own. There is no such thing as a perfect identity document system, and until government officials realize this, we will continue to see an erosion of personal privacy. O brave new world, that has such people in it!

